## Gigabit Libraries Network

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"Libraries WhiteSpace Pilot Goes Global" Adds new partnership with U.S. wireless ISP association

San Francisco - (February 13, 2014) - Today the <u>Gigabit Libraries Network</u> (GLN) announced the international expansion of its Libraries WhiteSpace Pilot. New pilot projects will be deployed over the next few months in the Philippines, Finland and Malaysia. Launched early last October as the first national scale TV white spaces (TVWS) trial in the US, over a dozen libraries and library consortia in six states began deploying TVWS devices to test their capability to dramatically(quickly, cheaply) widen geographical availability of library services.

Currently, the roughly 80 million people in the U.S. who rely on public libraries to provide broadband access must be in or just beside one of the 16,000+ facilities. The white spaces pilot demonstrates how integrating the near universal compatibility of wifi with the range and penetrating capabilities of TVWS equipment can increase availability and convenience of wifi access at 10's of thousands of new library hotspots across the country.

First round pilots, in various stages of implementation, are yielding the positive results and handson experience necessary to support wider deployments. Some of the participating libraries have already completed evaluation testing and are exercising options to purchase the enabling gear.

"At Delta County Library District we have found that TVWS technology can punch through with megabit rate internet where no other solution can penetrate tree canopy, buildings and other obstructions. TVWS systems are very easy to set up and a cost effective connectivity option particularly in rural areas offer where fiber, DSL, cable services are not available," says John Gavan of Delta County, Colorado Public Library.

"It is amazing how persuasive it is when something actually works. Having libraries engage in showing (even modestly) what is possible in this new TV White Space environment is the most persuasive way to get others up and running," says GLN advisor and internet pioneer, Vint Cerf.

The global pilot began as a local wireless initiative announced in May 2013 by Kansas City, Kansas Public Library to leverage otherwise high speed wireline connections to upgrade bandwidth to a remote branch stuck with an aging T1 connection. That quickly grew into the Kansas <u>K20-Librarians WhiteSpace Pilot</u>, a model for other states and the wider project.

Today marks the international expansion of the project with libraries in other countries participating in what is becoming the first global scale TVWS project of any kind. "We are more than pleased to welcome libraries anywhere in the world who want to join this open peer network of WhiteSpace Libraries," says Don Means, GLN Coordinator. "This new 'plug and play' wireless infrastructure has enormous potential to quickly and inexpensively provide basic access to billions of people without connections the world over."

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Alongside Microsoft, Google, British Sky Broadcasting Ltd, and over thirty other organizations, the Gigabit Libraries Network is a member of the <u>Digital Spectrum Alliance (DSA)</u>, a global organization promoting laws and regulations that will lead to more effective and efficient spectrum utilization. Paul Garnett, Director of Technology Policy at Microsoft and Chairman of the DSA Board says, "GLN's projects prove how a new generation of wireless devices, dynamically leveraging unused radio frequencies, can be used to deliver low-cost and robust broadband connectivity to libraries around the world. Pilot projects being launched by GLN and other Dynamic Spectrum Alliance members demonstrate how technical, regulatory, and business model innovation can be used to significantly increase digital and social inclusion."

Finns used Internet services at libraries 57 million times in Finland in 2010. The leading TV White Space project, WISE, plans to improve this figure even more. All Finnish municipalities have public libraries and most also have branches and bookmobiles. There were 798 public libraries and 154 bookmobiles in 2010. While main libraries and branches are located mostly in densely populated areas, bookmobiles cover expansive areas with a large number of scheduled stops to make the library more accessible to people living in remote villages. In some areas 25 % of the public library loans are made in a bookmobile. "The WISE project plans to test how TV White Space can bring Internet access to bookmobiles. School children and elderly people use bookmobiles the most," says project leader, Reijo Ekman of Turku University of Applied Sciences.

"Singapore-based Power Automation and A\*STAR's Institute for Infocomm Research (I<sup>2</sup>R) are happy to announce that they will be working with the Gigabit Libraries Network to conduct TV White Space trials in rural Malaysia and the Philippines in conjunction with GLN's Libraries WhiteSpace Pilot. This partnership will promote education and information access through enhanced connectivity at community libraries and neighborhood schools to bring greater benefits to those being served," says Project Director See Gim Kerk of <u>Power Automation</u>, a JV between Singapore Power and Siemens.

Delaware has been selected as one of the new state pilots in the US where the office of the State Librarian and the University of Delaware are leading an ambitious state wide initiative to determine the feasibility of deploying TVWS hubs at every library facility in the state. The initial pilots will be conducted with the Greenwood Public Library and Laurel Public Library in Sussex County, Delaware. "The WhiteSpace Pilot will extend our successful Job Centers @ Delaware Libraries services to further support business growth and entrepreneurship in Delaware," says Dr. Annie Norman, State Librarian of Delaware.

A first round state wide pilot consortium led by the University of New Hampshire's Broadband Center of Excellence (BCoE) to deploy TVWS systems in rural parts of the state also hosts a collaboration with GLN called the "Libraries Whitespace Lab" to explore emerging applications and related system issues effecting libraries anywhere.

Late last month BCOE Executive Director Dr. Rouzbeh Yassini, released a <u>white paper on TVWS</u> capabilities and outlook. "Broadband is as important as the water that sustains life, and the air we breathe. We at the University of New Hampshire's Broadband Center of Excellence are excited about the possibilities presented by TV Whitespace technology and the opportunity to work

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with the Gigabit Libraries Network on this exciting endeavor aimed at providing affordable broadband connectivity to unserved and underserved public libraries around the world," said BCoE Executive Director and CEO of YAS Capital Partners Dr. Rouzbeh Yassini.

"Given the relative low cost and ease of installation, we urge libraries in every state to initiate TVWS pilots and determine how this new open spectrum wireless technology might be deployed to enhance services and/or reduce costs," adds GLN's Means. "TVWS also provides one answer to the question: 'What to do with a Gig? -Share it!' Gigabit connectivity in most libraries represents at least temporary surplus capacity that can be quickly and widely leveraged via a TVWS network and in turn pull more fiber deeper into communities and markets as demand grows."

GLN is also announcing a new partnership with the U.S. Wireless ISP association to encourage local TVWS collaborations. "WISPA and its network of 800 experienced wireless providers are happy to partner with GLN and local libraries to provide Internet access using TV whitespaces spectrum. One of the mottos of WISPA is 'We take broadband where it has never gone before. Where there is a Wisp, there is a way," says Rick Harnish, Executive Director, WISPA.

## About the Gigabit Libraries Network:

An open collaboration of innovative, tech-savvy libraries cooperating as a distributed testbed and showcase environment for high performance broadband applications and equipment in the service of educational, civic and cultural objectives.

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